



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/020,685      | 12/14/2001  | Ernest Ndzebet       | 780396.91551        | 1340             |

7590

09/02/2003

Bennett J. Berson  
Quarles & Brady LLP  
1 South Pinckney Street  
P O Box 2113  
Madison, WI 53701-2113

3

EXAMINER

CANTELMO, GREGG

ART UNIT

PAPER NUMBER

1745

DATE MAILED: 09/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application N .

10/020,685

Applicant(s)

NDZEBET, ERNEST

Examiner

Gregg Cantelmo

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-10 and 12-15 is/are rejected.
- 7) ☒ Claim(s) 3 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed April 18, 2002 has been placed in the application file and the information referred to therein has been considered as to the merits.

### ***Drawings***

2. The drawings received December 14, 2001 are acceptable for examination purposes.

### ***Specification***

3. The use of various Alkaterge trademarks have been noted in this application. They should be capitalized wherever they appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 1745

5. Claims 4 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claims 4 and 12 appear to use a trademark or trade name as a limitation to identify or describe a particular material or product. Use of a trademark or trade name in this manner renders the claim indefinite since the claim does not comply with the requirements of the 35 U.S.C. 112, second paragraph. *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. In fact, the value of a trademark would be lost to the extent that it became descriptive of a product, rather than used as an identification of a source or origin of a product. Thus, the use of a trademark or trade name in a claim to identify or describe a material or product would not only render a claim indefinite, but would also constitute an improper use of the trademark or trade name.

If this trademark or trade name as appears in these claims is not intended as a limitation in then the Examiner questions why it is in the claim.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 5-9 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent No. 4,857,424 (Larsen) in view of U.S. patent No. 5,698,339 (Kawakami).

Larsen discloses a battery comprising a cathode, anode and an alkaline electrolyte wherein the negative electrode in comprises an anode mix comprising an alkaline electrolyte, anode active material, gelling agent and a silicate corrosion inhibitor (abstract and col. 3, ll. 46-56 as applied to claim 1 and 8).

The electrolyte comprises KOH (col. 3, ll. 39-42 as applied to claims 5 and 13).

The active material is particulate zinc powder (col. 3, ll. 48-50 as applied to claims 6 and 14).

The differences between the instant claims and Larsen are that Larsen does not disclose of the surfactant (i.e. the corrosion inhibitor) to be an oxazoline (claims 1, 8 and 9), of the surfactant coating at least a portion of the active material (claims 7 and 15).

Kawakami is drawn to the manufacture of electrochemical cells wherein numerous corrosion inhibitor materials are integrally formed within the anode layer to provide a protective barrier between the active material in the electrode and the electrolyte within the pores of the anode (Fig. 1, col. 5, ll. 11-37; col. 10, ll. 28-35). The insulating material can be any number of materials including silicones and oxazolines (paragraph bridging columns 15 and 16 as applied to claims 1, 7-9 and 15).

The motivation for using an oxazoline is that it would have provided a protective barrier between the active material in the electrode and the electrolyte within the pores of the anode while also permitting ionic conductivity in the anode active layer.

Art Unit: 1745

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the teachings of Larsen by using oxazoline as the corrosion inhibiting material since it would have provided a protective barrier between the active material in the electrode and the electrolyte within the pores of the anode while also having permitted ionic conductivity in the anode active layer. The selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945) See also *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). MPEP § 2144.07.

9. Claims 2 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larsen in view of Kawakami as applied to claims 1 and 9 above, and further in view of either U.S. patent No. 3,389,145 (Katz) or JP 03-071559-A (JP '559).

The difference not yet discussed is of the oxazoline comprising a fatty acid chain.

Larsen and Katz are drawn to providing anticorrosive materials to the anode mixture to prevent corrosion of the anode active material by the electrolytic solution present in the cell.

Fatty acid oxazolines are known to have excellent anticorrosion properties (Katz, col. 1, ll. 46-51 or the abstract of JP '559).

The motivation for using a fatty acid oxazolines is to improve the anticorrosion properties of the active material.

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the teachings of Larsen in view of Kawakami

Art Unit: 1745

to use a fatty acid oxazolines since it would have improved the anticorrosion properties of the active material. The selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945) See also *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). MPEP § 2144.07.

***Allowable Subject Matter***

10. Claims 3 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter: none of the prior art of record are considered to teach, suggest or render obvious the invention of claims 3 or 11.

Claims 3 and 11 further define a particular oxazoline surfactant. None of the prior art of record teaches or suggests using the material of claims 3 and 11 as an oxazoline surfactant material used in an anode mixture.

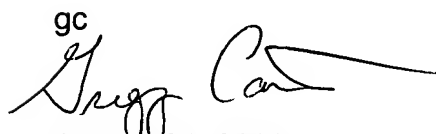
As can be seen in Table 1, the particular surfactant has significantly improved discharge capacity over a prolonged time period. Thus this particular oxazoline surfactant has improved properties as compared to generic oxazoline surfactants and thus appears to be a novel contribution to the art.

Art Unit: 1745

**Conclusion**

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregg Cantelmo whose telephone number is (703) 305-0635. The examiner can normally be reached on Monday through Thursday from 8:00 a.m. to 5:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan, can be reached on (703) 308-2383. FAX communications should be sent to the appropriate FAX number: (703) 872-9311 for After Final Responses only; (703) 872-9310 for all other responses. FAXES received after 4 p.m. will not be processed until the following business day. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Gregg Cantelmo  
Patent Examiner  
Art Unit 1745

gc  
  
August 24, 2003